



Air Force Research Laboratory | AFRL

Science and Technology for Tomorrow's Aerospace Forces

Success Story

MR. GEORGE SCHMITT RECEIVES FEDERAL LABORATORY CONSORTIUM TECHNOLOGY TRANSFER AWARD



The successful transfer of Air Force technology pays dividends to the consumer, industry, and the Air Force. Brake-by-Wire (BbW) and its related technologies could revolutionize the way manufacturers construct electrical systems in aircraft and braking systems in next-generation automobiles. Engineers expect BbW technology to offer increased safety and vehicle stability to consumers and provide benefits to automotive vehicle manufacturers, who will combine vehicle components into modular assemblies using cost-effective manufacturing processes.



Air Force Research Laboratory
Wright-Patterson AFB OH

Materials and Manufacturing
Awards and Recognition

Accomplishment

The Federal Laboratory Consortium (FLC) for technology transfer recently awarded Mr. George Schmitt, a division chief with the Materials and Manufacturing Directorate, the Midwest Region Technology Transfer Award. Mr. Schmitt received the award for his work in BbW-related technologies.

Background

In June 2001, AFRL and Delphi Automotive Systems signed a technical collaborative agreement to bring BbW technology to the automotive industry. While conventional brake systems found on cars today are hydraulic, BbW technology sends electrical signals to the brake system to stop a vehicle. The Air Force has an extensive background in landing gear and fly-by-wire systems, while Delphi will work to integrate BbW technologies into next-generation vehicle handling and safety systems.

Mr. Schmitt, chief of the directorate's Integration and Operations Division, led several organizations assembling technical projects for this collaborative effort. Under his leadership, experts from three AFRL directorates (Materials and Manufacturing, Air Vehicles, and Propulsion) addressed electrical motors and actuators, high temperature insulation materials, reconfigurable control technologies, fault tolerant architectures, and reliable wiring and connectors.

Introducing the technology to the commercial arena also benefits the Air Force by creating a demand for shared components, thus reducing the component cost to government and industry for their respective applications. The collaboration will also leverage investments in more electric aircraft and provide needed large-scale technology validation.

Mr. Schmitt received first place in the Automotive and Aerospace category and honorable mentions in the Materials and Manufacturing and Consumer Products categories during the FLC's Midwest Region meeting at Argonne National Laboratory near Chicago, Illinois. His selection for the FLC Award recognizes outstanding individual accomplishment and enhances AFRL's reputation as a world leader in materials and manufacturing research and development.

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTT, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (01-ML-17)